CHAPTER 1 INTRODUCTION

- 1-1. <u>General</u>. This Engineer Pamphlet (EP) presents procedures for providing UXO support during HTRW and construction activities. The EP will introduce the different requirements for providing UXO support during the investigative/design phase and remediation/construction phase of projects on sites with known or suspected UXO.
- a. During the investigative/design phase of any project on a site with known or suspected UXO, UXO support refers to the anomaly avoidance techniques implemented to avoid any potential surface UXO and any subsurface anomalies. USACE primarily implements anomaly avoidance procedures on HTRW sites. Intrusive anomaly investigation is not authorized during anomaly avoidance activities. Although the examples of anomaly avoidance techniques in this EP pertain to HTRW-related activities, the procedures may be modified to address other types of activities, as appropriate. For additional information on anomaly avoidance techniques, contact the OE MCX.
- b. UXO support during construction activities, including the remediation phase of an HTRW project, on a site with known or suspected UXO may include only UXO safety support or may require a complete subsurface clearance response. The level of UXO support required during construction activities is dependent on the probability of encountering UXO.
- (1) If the probability of encountering UXO is low (e.g., current or previous land use leads to an initial determination that UXO may be present), only UXO safety support will be required. UXO safety support is discussed in paragraph 6-5 of this document.
- (2) When a determination is made that the probability of encountering UXO is moderate to high (e.g., current or previous land use leads to a determination that OE was employed or disposed of in the area of concern), UXO qualified personnel must conduct a subsurface clearance of the known construction footprint and remove all discovered UXO.
- (3) The level of effort for construction support is site/task-specific and will be determined on a case-by-case basis by the project team in coordination with the Ordnance and Explosives (OE) Mandatory Center of Expertise (MCX).
- c. If UXO is encountered after initiation of an HTRW or construction project, the procedures to be published in ER 385-1-95 may apply. Contact the OE MCX for guidance and assistance.
- d. The OE MCX will determine procedures for sampling and cleanup of soils contaminated with primary explosives on a case-by-case basis. The HTRW Design District is responsible for the design and removal or remedial action to clean up soils contaminated with

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secondary explosives; however, where military munitions (excluding bulk explosives) are suspected or known to exist, the appropriate OE Design Center is responsible for the design, and the appropriate OE Design Center or the district approved to execute OE removal actions is responsible for the cleanup.

1-2. Responsibilities.

- a. It is the responsibility of all USACE personnel involved with the OE Program to safely execute OE response projects, including UXO support during HTRW and construction activities, in accordance with applicable laws, regulations, and policies. A detailed discussion of USACE organizational responsibilities for OE response projects is presented in Engineer Regulation (ER) 1110-1-8153, Ordnance and Explosives Response.
- b. All USACE organizations will ensure that all personnel with access to the site for UXO support during HTRW and construction activities are familiar with, and have access to, copies of the accepted Work Plan and Site Safety and Health Plan (SSHP). In addition, each organization will ensure that such personnel receive the appropriate training, medical surveillance, and personal protective equipment (PPE) required by the safety plan, contract specifications, Occupational Safety and Health Administration (OSHA) Standards, USACE regulations, and applicable Department of Defense (DOD) and Department of Army (DA) regulations.
- 1-3. <u>Functional Roles</u>. The following section provides a description of the functional roles for UXO support activities. A more comprehensive description of the functional roles for the organizations discussed below is also provided in ER 1110-1-8153.
- a. Headquarters, US Army Corps of Engineers. If an explosives safety submission (ESS) is required for UXO support activities, it will be reviewed and approved by HQUSACE.
- b. Major Subordinate Command. If an ESS is required for UXO support activities, it will be monitored by an MSC in accordance with ER 1110-1-8153.
 - c. District. A district will:
 - (1) Execute UXO support activities.
- (2) Assign a Project Manager (PM) to lead the project team, coordinate all project activities, serve as a liaison with other stakeholders, and review/approve project documents as required.
 - (3) Conduct UXO support activities with either in-house resources or by contract.
 - (4) Coordinate the UXO support project with the OE MCX.

- (5) Prepare a project-specific Statement of Work (SOW) and Independent Government Estimate (IGE) for UXO support activities.
- (6) Submit plans developed for UXO support activities to the OE MCX. All OE concerns will be addressed before initiating any on-site activities.
- (7) If an ESS is required, review and provide comments and written concurrence or nonconcurrence.
- (8) Supervise the fieldwork. UXO operations will be supervised by UXO qualified personnel.
 - (9) Conduct appropriate quality verification activities.
- (10) Coordinate requests for support from the 52^{nd} Ordnance Group (EOD) with the OE MCX.
- d. OE Design Center. If an ESS is required for planned UXO support activities at a site, the appropriate OE Design Center will ensure its proper planning and preparation.

e. OE MCX. The OE MCX will:

- (1) Review and provide comments and written concurrence or non-concurrence on UXO support-related products (e.g., SOW, Work Plan, and ESS) to ensure compliance with federal, DOD, DA, and USACE OE safety and OE environmental regulations.
- (2) Provide OE technical support to any USACE office conducting construction and/or HTRW operations in areas where UXO is suspected or known to exist.
- (3) Develop and/or approve OE-specific contract requirements, including OE contractor personnel qualifications and work standards, for contract acquisition.
- (4) Assimilate and analyze lessons learned from UXO support projects and provide them to the HTRW MCX for inclusion in the USACE lessons learned database.
- (5) Coordinate the 52^{nd} Ordnance Group support in accordance with the Memorandum of Agreement (MOA) between the U.S. Army Engineering and Support Center, Huntsville (USAESCH) and 52^{nd} Ordnance group.
- f. OE Safety Specialist. If a subsurface clearance response is being conducted in support of construction activities, an OE Safety Specialist will be present to provide safety oversight. Otherwise, an OE Safety Specialist is generally not required on-site. Additional information is available in ER 1110-1-8153.

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g. U.S. Army 52nd Ordnance Group. The Group will respond to requests for assistance in accordance with its MOA with USAESCH.